Experimentelle Untersuchungen über die Beziehung der motorischen Ganglienzellen der Medulla spinalis zu peripheren Nerven. A. v. Sass. Inaug. Dis., Dorpat, 1888. Reviewed by Openchowski in Centralbl. f. Physiol. No. 25, 1889.

By a systematic application of v. Gudden's method, by which the atrophy of the central end of a motor nerve and its corresponding nucleus is brought about when the peripheral portion has been removed in a very young animal, Sass sought to determine the position and extent of some of the motor-nuclei in the spinal cord. The animals having been allowed to live some time after operation, serial sections of the cord were made and the number of ganglion cells in the corresponding halves compared, it having been previously determined that in a normal animal they were approximately equal in number on the two sides. By the decrease in the number of ganglion cells in one half of the cord, the extent and outlines of the nuclei could be traced.

The author concludes that the nuclei of the spinal nerves are not distinctly circumscribed, but that the nuclei run into one another. The motor region for the median nerve is in the caudal two-thirds of the eighth cervical segment, the cephalic third of the seventh and caudal third of the sixth; that for the radial nerve in the cephalic third of the eighth, in the seventh and in the cephalic half of the fifth cervical segment; that for the ulnar in the cephalic half of the first dorsal, and in the cephalic third of the eighth cervical. The nucleus of the ischiadic nerve was found, in conformity with the results of v. Gudden and Mayser, in the caudal portion of the lumbar enlargement.

Anatomische aanteekeningen naar aanleiding van een geval van atrophie van het linker corpus mamillare. C. Winkler und J. Timmer. Feestbundel van Douders, p. 26. Reviewed by Heymans, Centralbl. f. Physiol. No. 25, 1889.

From the study of rabbits and dogs v. Gudden reached the conclusion that each corpus mamillare contained at least two nests of cells — a medial and lateral. The medial nest connected mainly with the ascending pillars of the fornix, while the lateral one was connected with the bundle of Vicq d'Azyr, which in turn is connected with the tuberculum anterius of the optic thalamus. v. Gudden further described a crossed bundle, which now bears his name, the bundle of v. Gudden, and which passes from the corpus mamillare caudad and disappears among the tegmental fibers. The applicability of these results to man has been questioned by Flechsig, though v. Monakow has already described three pathological human brains which in general support v. Gudden's results. The fourth case is now described by the authors. It was the brain of an idiotic and epileptic girl, showing marked degeneration in the left hemisphere, and that specially in the parietal and occipital lobes. The basis of the brain was symmetrical save that the left corpus mamillare was atrophied to almost half the normal size. The corpus striatum was alike on both sides, but the tuberculum anterius was atrophied completely, while the pulvinar was somewhat smaller on the left side. Microscopical examination revealed a slight atrophy of the cortex of the gyrus hyppocampus, with complete atrophy of the cortex of the parietal and occipital lobes, an interesting partial atrophy of the left ascending pillar of the fornix, the lateral gan-

glion of the corpus mamillare and the bundle of Vicq d'Azyr, but there was no indication that this bundle crossed as described by v. Monakow. These facts, besides showing the multiple origin of the fornix (v. Gudden), are taken to indicate that the most inferior of the fornix bundles arises from the lateral ganglion of the corpus mamillare (against v. Gudden), and that a connection exists between the tuberculum anterius and the parietal and occipital lobes.

Ueber die experimentelle Verstopfung der Sinus Durae Matris. P. FERRARI. Wiener med. Jahrb. 1888, p. 81.

Contributions showing the conditions necessary for the circulation within the cranium are a natural result of the present interest in the surgical interference with the brain. By the injection of sterilized masses of wax and oil into the various cranial sinuses of the dog, the author has produced a mechanical obstruction in different portions of the venous outflow from the brain. The injection was made through the vena facialis or the vena ophthalmica, as the occasion demanded. By this means the sinuses of the roof or the base of the skull or the sinus cavernosus could each of them be separately injected, and when the injections were made at intervals, wax of different colors was used, thus enabling the experimenter to trace the result of each injection at the post-mortem. The general result was that very extensive plugging of the sinuses could be made without any serious symptoms or without giving rise to degenerative changes in the brain substance in the neighborhood of the plug. Indeed, all the sinuses of the roof could thus be plugged without causing any symptoms, but when all outflow was cut off the dog died in a few minutes, death being usually preceded by an epileptic attack.

Ueber drei Fälle von progressiver Paralyse mit Herderkrankungen in der inneren Kapsel. TH. ZACHER. Archiv f. Psychiatrie, XIX, 3, S. 726.

The descriptive anatomy of the brain suffers much confusion from the fact that it is, as a rule, very difficult to designate the exact level of the section by anything except a figure or an elaborate description. The latter is wearisome, but the lack of it may often cause misunderstanding. The position of the various tracts in the internal capsule is a case in point, for here the relative position is largely influenced by the level at which the section is made. This appears to be one source of the somewhat conflicting accounts of several authorities. From a study of his three cases, the author takes sides in the following way. A horizontal section of the brain made at such a level as to give nearly the maximum distance between the head and tail of the caudate nucleus displays the bands of white matter forming the internal capsule, the anterior limb lying between the head of the caudate and the lenticular nucleus, and the posterior limb between the lenticular nucleus and the optic thalamus. The two limbs meet at almost a right angle in this section, and form the portion known as the knee of the internal capsule. In the first case of the author, the lesion involved the major portion of the anterior limb, except the neighboring part of the knee, and no secondary degeneration was found in the corresponding crus. In the second case, the portion of the knee intact in the first instance was affected, and there was marked degeneration in the mesial portion of the pes. From this it is concluded that those fibers coming